

# इंटरनेट

# मानक

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IS 6753 (1972): Code for Identification of Aircraft  
Pipelines [TED 14: Aircraft and Space Vehicles]



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Indian Standard

# CODE FOR IDENTIFICATION OF AIRCRAFT PIPELINES

**1. Scope** — Requirements for a scheme to indicate, by appropriate marking, the functions of pipe systems in aircraft and spacecraft, so as to provide the minimum identification necessary for normal maintenance purposes.

## 2. The Scheme

### 2.1 General

**2.1.1** Where ambient temperatures permit, the scheme shall consist of markers applied to the pipe systems to indicate their functions, to give due warning where the contents are dangerous and, wherever required, to indicate the direction of flow of the contents.

Any additional identification required shall be separate and distinct from the lettering, symbols and colours specified in this standard. It is recommended that such additional identification shall be by means of a number code.

**2.1.2** Where ambient temperatures are too high to permit the use of markers, the requirements of this standard shall be met as fully as possible. As a minimum requirement, one inscription in black letters, located in accordance with 4, shall be applied in such a manner that it remains legible throughout the temperature range imposed on the line.

**2.1.3** Where adhesive tape is used for the purposes of the scheme, a liberal coating of suitable clear lacquer shall be applied with a soft brush, overlapping both edges of the tape by not less than 6.5 mm and forming a complete film.

### 2.2 Basic Identification

**2.2.1** Each of the pipe systems listed in Table 1 shall be identified by a marker bearing the name of the main function of the system and the appropriate symbol as described in Table 1 and shown in Fig. 1.

**2.2.2** Filler lines, vent lines, pressure transmitter lines, priming lines and drain lines for the main functions or related functional equipment shall be identified by the same marker as the function line.

**2.2.3** The contents of pipe lines other than those listed in Table 1 (for example, drinking water) shall, where necessary, be identified by markers bearing the name of the function only.

### 2.3 Supplementary Identification

**2.3.1 Subdivision of main function** — Where necessary for further identification of a pipeline, a subdivision of a main function shall be by means of additional words, describing the specific contents of function of the subdivision (for example, methyl bromide, vacuum, auto-pilot), which may be on a second narrower marker alongside the left-hand edge of the basic identification marker or interposed between the words on the main marker.

**2.3.2 Warning symbol** — Markers bearing the skull and crossbones symbol, as shown in Fig. 1, Code No. 14, shall be applied adjacent to the basic identification markers on all lines for rocket installations and on other lines where it is necessary to indicate that the contents of the lines are considered to be dangerous to maintenance personnel.

**2.3.3 Direction of flow** — When required, the direction of flow of the contents of a pipeline shall be indicated by means of additional markers bearing arrows, as shown in Fig. 1, Code No. 18.

## 3. Markers

### 3.1 General

**3.1.1** Except as provided in 3.2.2, all lettering and symbols shall be printed in black upon a white or equivalent ground.

**3.1.2** If desired, alternate rows or, where appropriate, pairs of rows of the lettering, may be inverted.

Adopted 30 November 1972

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Price Rs

**TABLE 1 PIPE SYSTEMS AND SYMBOLS**[ *Clauses 2.2.1, 2.2.3, 3.4.1 and Fig. 1 (Note 1)* ]

SI No.	Pipe System	Symbol	
		Description	Code No.
i)	Air conditioning ( including cabin pressurization )	Dot pattern	11
ii)	Breathing oxygen	Rectangle	10
iii)	Compressed gas	Broad diagonal stripes	16
iv)	Coolant	Horizontal ' S '	9
v)	De-icing	Staggered triangles	13
vi)	Electric conduit	Flash of lightning	17
vii)	Fire protection	Horizontal diamond	12
viii)	Fuel ( including pressure lines, vent lines )	Four-pointed star	1
ix)	Hydraulic	Circle	6
x)	Inerting fluid	Staggered pipe crosses	19
xi)	Instrument air	Continuous zigzag line	8
xii)	Lubrication	Staggered squares	5
xiii)	Monopropellant	Block ' T '	21
xiv)	Pneumatic	Continuous X-form lattice	7
xv)	Rain repellent	Falling raindrops	22
xvi)	Rocket catalyst	Three vertical stripes	15
xvii)	Rocket fuel	Four-pointed star inside crescent	3
xviii)	Rocket oxidizer	Crescent	2
xix)	Solvent	Horizontal stripes	20
xx)	Water injection	Chevron	4

### 3.2 Basic Identification Marker

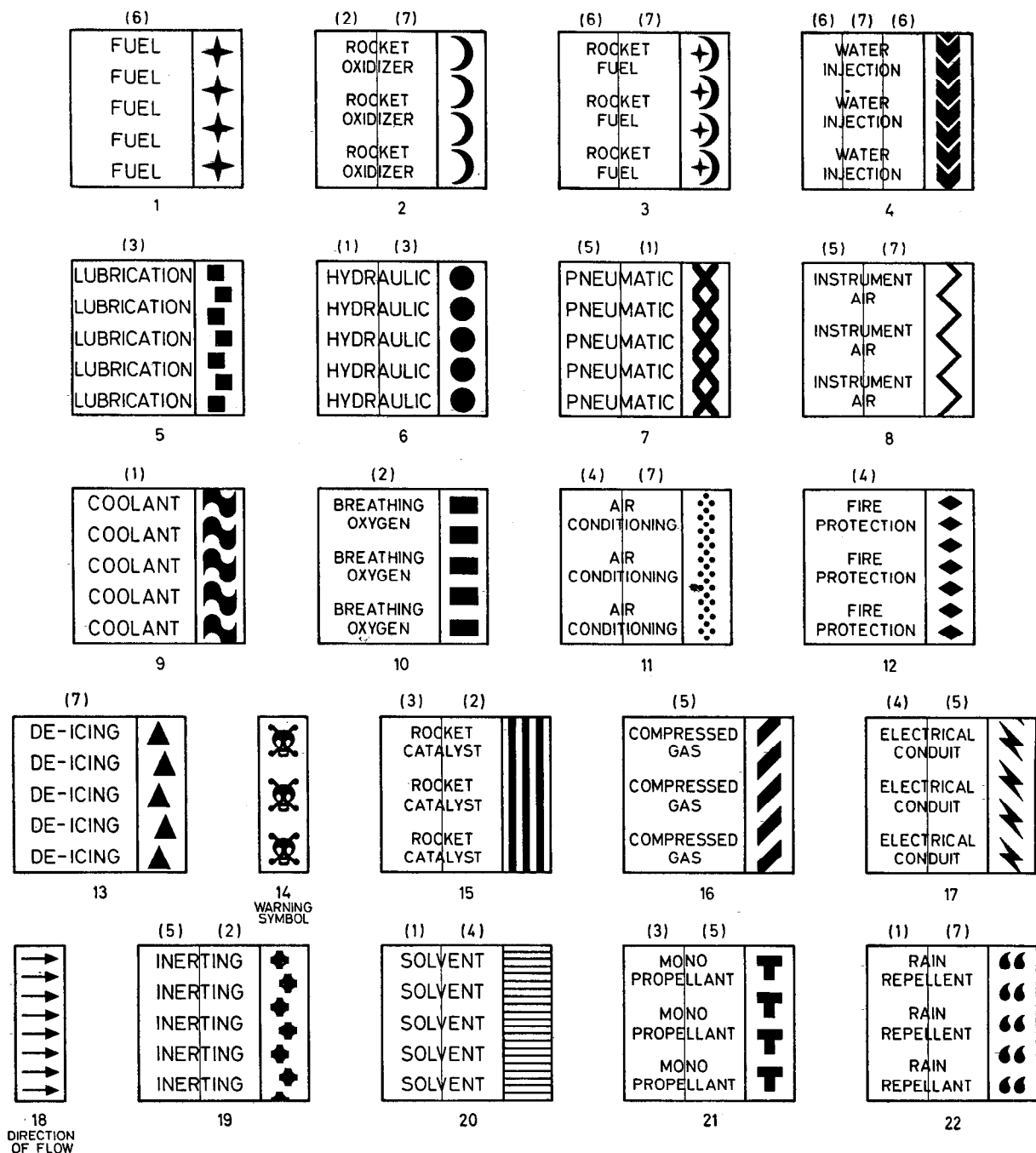
**3.2.1** The basic identification marker shall be 25 mm wide and shall bear:

- the appropriate symbol forming a continuous pattern in a 6.5-mm wide band on the right-hand margin of the marker; and
- the written description of the main function of the pipeline; in lettering not less than 3 mm high, repeated at regular intervals such that the gap between the lines is not more than twice the height of the lettering, on the portion of the marker not used for the symbol.

**3.2.2** If desired, the background to the written description may be coloured. The colouring shall be as indicated in Fig. 1 in which the colours have been indicated with the help of serial numbers within parentheses above the markers. These numbers correspond to the serial numbers for the colours given in Table 2 and the standard references of these colours have also been indicated in the table. The colours shall have the colorimetric value given in Table 2 and shall not be of such density as to obscure the lettering.

### 3.3 Supplementary Identification Markers

**3.3.1** Markers used for supplementary identification purposes (see 2.3) shall be not less than 13 mm wide.



**Note 1** — The numbers given below the markers are code numbers as given in Table 1.

**Note 2** — The numbers within parentheses given above the markers are serial numbers of the colours as given in Table 2.

FIG. 1 IDENTIFICATION COLOURS AND SYMBOLS

### 3.4 Identification

**3.4.1** For purchasing and handling purposes, the markers shall be identified by the number of this Indian Standard together with the appropriate code number as shown in Table 1. For example, the marker for the hydraulic system shall be identified as 'IS : 6753/6'.

### 4. Location of Markers

**4.1** Markers shall be located at both ends of a pipeline component and at approximately 600 mm spacing along the line. Identification points shall be selected so that, when the pipeline is installed, at least one marker is located adjacent to each servicing point and inspection door.



4.1.1 To preclude over-application of markers, discretion may be exercised when implementing these requirements. Where visibility is unrestricted over a one-piece pipeline of considerable length, the markers need only be placed at intervals necessary to ensure that at least one marker is visible and recognisable from any observation point along the line. Similarly, where a length of pipeline is less than 600 mm and the installed pipeline may be readily traced, only one marker need be used.

5. Application — Typical examples of the application of identification scheme are shown in Fig. 2.

TABLE 2 COLORIMETRIC VALUES OF COLOURS USED

[ Clause 3.2.2, and Fig. 1 ( Note 2 ) ]

SI No.	Colour	IS Colour No.*	Chromaticity Co-ordinates and Luminance Factor under CIE† Standard Illuminant B Illuminated Normally — Viewed at 45°		
			Value x	Value y	β <sub>1</sub> %
1)	Blue	166	0.218	0.225	14.5
2)	Green	218	0.362	0.517	14.8
3)	Yellow	309	0.484	0.488	65.2
4)	Brown	412	0.522	0.341	2.84
5)	Orange	592	0.650	0.334	12.7
6)	Red	538	0.641	0.308	3.88
7)	Grey	631	0.342	0.362	30.4

\*IS : 5-1961 ' Colours for ready mixed paints '.

†Commission Internationale pour l'Eclairage ( International Commission on Illumination ).

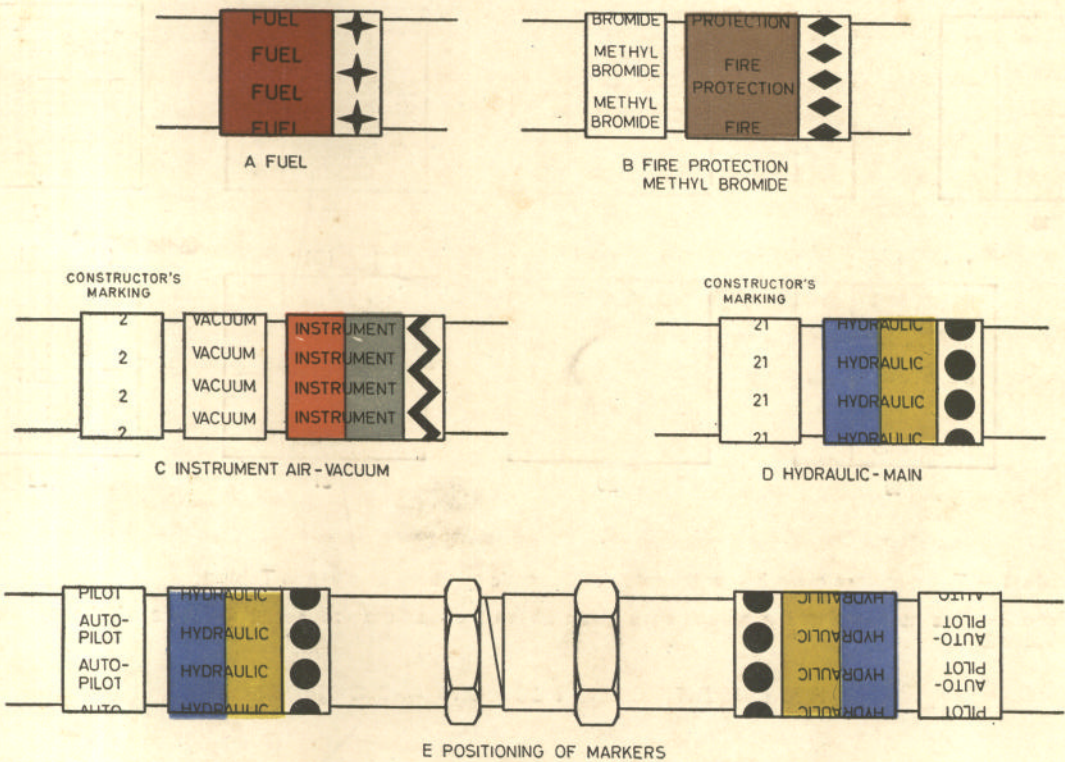


FIG. 2 TYPICAL APPLICATIONS OF MARKERS